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USSR Report

TRANSPORTATION

No. 56

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AIR

DAL'AEROPROYEKT INSTITUTE'S WORK IN SIBERIA, FAR EAST EXAMINED

Moscow VOZDUSHNYY TRANSPORT in Russian 23 Jul 81 pp 1, 2

[Article by R. Leont'yev, section chief of Dal'aeroproyekt and candidate of technical sciences (Khabarovsk): "Prospects from the Point of View of Today's Problems"]

[Exerpts] Dal'aeroproyekt [Far East Institute for the Design of Airport Facilities] has for 10 years been building up substantial experience in the design and construction of various structures for civil aviation, for the complicated climatic and hydrogeological conditions of permafrost, high seismicity, and subsident and rocky soils. We emphasize: in the future, the solution of the practical problems of designing in accordance with modern requirements can be accelerated only where there is a high level of scientific research and a further strengthening of the ties of science with production.

One of the main objective causes of the deficiencies that have been noted is the regional isolation of the civil aviation scientific-research institutes, which are found in the European part of the country, from the rapidly developing aviation enterprises of Siberia and the Far East. This can be avoided by establishing a scientific research subunit, to be located in Khabarovsk, under Dal'aeroproyekt. Let us recall that the creation at one time of the Siberian Division of the AN SSSR [USSR Academy of Sciences] and the Far Eastern Scientific Center gave a powerful push to development of the productive forces of Siberia and the Far East and a new impulse to all Soviet science.

The creation of a scientific-research division in Dal'aeroproyekt will unconditionally improve the design, construction and rebuilding of airports. For it is known that the effectiveness of these operations are higher in integrated organizations that have both design and scientific-research sections. Integration will enable facilities to be provided in a short time with documentation and, since it directly connects science with design, will speed up the introduction into practice of the results of the scientists' development.

Up until now Dal'aeroproyekt has been developed only as a design and surveying organization. However, the scheme for the development of a GPI [state design institute] and an Aeroproyekt [Institute for the Design of Airport Facilities] NII [Scientific-Research Institute] in 1990 calls for the organization in all branches of the prime institute of scientific-research divisions, with laboratory buildings and testing grounds for research. In considering the task of increasing the amount of capital construction and reconstruction of airports in Siberia and the Far East that the party has set for the industry during the 11th Five-Year Plan, the question of creating a scientific division under Dal'aeroproyekt must be solved as soon as possible.

Actually, why wait? The design and budget-estimating documentation for a laboratory building for our institute has been completed, the decision to start its construction next year has been adopted, and a contractor has been named. The institute already has a mobile laboratory for studying airdrome pavements and other equipment for experimental work. Manning of the division's staff and the shaping of the direction of its scientific developments will require time. Timely solution of the problem would allow the existing scientific collectives to enter their new building in 1985. In this regard, the situation in Khabarovsk is advantageously different from the situation in Novosibirsk, where even the question of allocating funds for constructing the buildings for the proposed scientific branch of the prime institute had not been resolved.

In what directions would it be desirable to develop research in a scientific division of Dal'aeroproyekt? First, the development of schemes for developing networks of Siberian and Far East airports for the period up to the year 2000. For example, already now there is a need to determine the prospects for developing air transport as a most important component part of the unified transport system of the BAM [Baykal-Amur Mainline] zone. There is no doubt that such long-term plans will require the mathematical processing of a large amount of data. In other words, the so-called systems approach is required: forecasting of the amounts of hauling, the forming of airlines and the optimal assignment thereto of aircraft, and the rational basing thereof. All this is unthinkable without the use of modern mathematical scientific methods and research. These problems can be solved both on the basis of in-house computers and the rental of computers of the AN SSSR Computing Center that was recently established in Khabarovsk.

Another direction is the development and introduction of new types of airdrome paving and modern methods for organizing the repair and rebuilding of airdromes into the practice of designing, building and operating airports, given the specific environment of the region.

Still another important topic is research of the status of the design of modularized buildings and structures for airports under the region's special operating conditions. The task of creating and introducing new technology and equipment for the integrated mechanization and automation of the production processes is extremely urgent, since Siberian and Far East airports are much inferior to those of other parts of the country in this regard.

Incidentally, Dal'aeroproyekt will in the near future take part in fundamental multisector development, "The Regional Integrated Scheme for Nature Conservation of Regions Adjacent to the BAM up to the Year 2000."

...As has already been said, Dal'aeroproyekt has gained during its existence experience in the design, construction and rebuilding of airports and has repeatedly encountered questions whose answers could well apply to local scientific-research work. Thus, it would seem, one of the main questions for today is the organizational one.

11409
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SHORTAGE OF HELICOPTER PILOTS IN TYUMEN' EXAMINED

Moscow VOZDUSHNYY TRANSPORT in Russian 28 Jul 81 p 3

[Article by V. Krasnov, deputy chief of the Tyumen' Administration of GA [Civil Aviation] and M. Makarov (Tyumen'): "The Test of the North. Whether Everyone Is up to It"]

[Excerpts] It is often said that strong people are a necessity for work in the North. It is difficult to defend or to refute this opinion. One thing can be said with certainty: a strong character is needed here. The rigorous region tests the stamina and firmness of each of its inhabitants.

It no longer surprises anyone that the commander of an aircraft of the first class, such as the Mi-7 helicopter, are young people 23-24 years old who finished flight school 2 or 3 years ago. On the one hand, this phenomena is completely progressive, which answers the spirit of the NTR [scientific and technical revolution]. But on the other...

And so the problem narrows down to a shortage of flying personnel. How does this happen, when undoubtedly there are so many who wish to work in the North? Let us begin with the fact that most often the pilots of airplanes, especially the An-2, who ask to work here are already surplus in the administration. It is understandable that retraining them for helicopters, which comprise the main portion of all aviation equipment here, is a luxury.

It is true, the ministry right now is actively cooperating in transferring helicopter pilots to Tyumen' from other administrations. But this potential is being realized only by half. And here is why. First, helicopter pilots are scarce everywhere. Second, in order to invite experienced pilots, it is necessary to have housing, of which there is a shortage, even for working specialists.

And there are scarcely enough pilot-school graduates, ready to operate helicopters, to make both ends meet. For in creating ever newer and newer crews, the administration loses almost as many. After working off the prescribed 3 years (and sometimes even sooner), the graduates of the schools often leave, just as they have crossed the North's threshold.

First a few words about the housing and living conditions problems. It cannot be said that it is not being solved: the ministry allocates substantial funds to the administration for this purpose. But with the accelerated pace of development of aviation enterprises it becomes quite clear that there are not enough funds. Right now, while the administration is establishing its own in-house construction base, the task comes up of arranging not only for the erection of the surface facilities of airports but also of housing facilities. Simultaneously, it is necessary to obtain a greater share of housing space from the main clients.

And again we return to the first point, perhaps the basic cause of personnel turnover: the difficulties of working in a rigorous region. Although it is said today that the North is more of a social concept than a geographical one, you do not dismiss its climate from your calculations. Often people come to aviation enterprises who are not prepared in spirit for the forthcoming difficulties: they do not possess a strong and firm character.

The process of adaptation is most difficult of all for those young aviators who were not able in school to develop a feeling of self-discipline. On becoming free, they have at their disposal personal time and 600 rubles in pay, and at times they do not know how to enjoy these properly.

And the question arises here: is it not time to be concerned about the system of choosing specialists for the North? Many school graduates at times are not ready for difficulties because of the fact alone that they have not been trained for independence. In following their leaders (instructors and teachers) everywhere, they do not in the end achieve the very basic quality--the courage of their profession.

In the Tyumen' administration, it is true, they are not waiting for scientific institutions to start to train aviators specially for work in the North. For several years now they have been conducting zonal recruitment here for Civil Aviation schools and institutes. Each year in Tyumen' they give examinations to more than 700 high-school graduates who have been chosen locally. It is hoped that such "nominees" will later on adapt more easily and firmly to the flying collectives. However, local personnel are far from being sufficient to satisfy the demand of the administration's aviation enterprises for flying personnel and other specialists.

But again, in meeting replacements, commanders and veterans of the Tyumen' administration peer attentively into the faces of the young aviators: are they able to withstand this difficult northern test...?

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SHORTAGE OF SPARE PARTS FOR KA-26 HELICOPTERS NOTED

Moscow VOZDUSHNYY TRANSPORT in Russian 30 Jul 81 p 2

[Article by A. Stolyarov, senior engineer of the Section for Supplying Materials and Equipment to Aviation Enterprises (Ufa): "A Good Answer to a Poor State of Affairs"]

[Text] Our Ufa enterprise has been operating Ka-26 helicopters for a long time now. And almost every year we lack spare parts, because of which machines stand idle. Despite some needless persistency, we come to the very same end: we get a rejection.

Let us take, for example sets of covers for helicopters. The newspaper VOZDUSHNYY TRANSPORT raised this urgent question in its pages last year. And a positive answer to it was published. But no little time has passed now and the matter has not budged for the better.

A second problem are the control columns. Industry still does not satisfy the demand for them. But indeed we have repair plants, for example, Plant No 421 of GA [Civil Aviation]. Instead of returning repaired columns, we get from them, at best, writeoff certificates. In the last 3 years alone we have sent 14 columns to the plant. We have received not one in return.

Things go no better with reduction gear boxes. The plant writes off the expensive units. This is not surprising. For years they have been stored where they are dropped off, often under the open sky. No one follows up during the property checks. And how is that to be done if the custodian of the items to be repaired cannot even find and point out the reduction gear boxes that belong to our aviation enterprise? The matter becomes comical--at the warehouse, reduction gears that have already been installed on helicopters are still being counted.

I would like to present a request to the readers of the newspaper, among whom, certainly, there are many who have business with helicopters: share your experience--how do these machines operate normally without control columns, reduction gear boxes and covers?

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AIR

MORE FUEL STORAGE TANKS NEEDED AT AIRPORTS

Moscow VOZDUSHNYY TRANSPORT in Russian 23 Jul 81 p 2

[Article by P. Razgonov, cartoon by Yu. Ivanov]

[Text] At some civil aviation administrations, especially the Uzbek, Belorussian, Magadan, Urals, North Caucasus, Volga and Tyumen' administrations, and also at the Moldavian RPO, few storage tanks for aviation fuel have been built for some number of years, at a time when fuel consumption has been increasing. Because of this, the shipping of fuel from a large number of distribution points is being hampered artificially, and aviation enterprises are paying thousands of rubles in penalties for above-norm retention of railroad tank cars.

The pattern is broken if one wants to say
  That fuel storage tanks have seen their last day:
Let each one carry his fuel on a yoke,
  Solving all problems in a light puff of smoke.

Key:
1. Self-service.

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RAILROAD

PROBLEMS IN HAULING COAL, OIL HIGHLIGHTED

Shipments to Zaporozh'e GRES

Moscow GUDOK in Russian 1 Jul 81 p 1

[Article by K. Verbitskiy, peoples' controller, Energodar: "They are Not Extending a Helping Hand"]

[Text] The Zaporozh'e GRES operates on fuel oil and coal. To their credit, shippers and railroad workers on the Kuybyshev, Odessa, Pridneprovsk and Donetsk railroads are supplying the GRES with fuel on a timely basis and in the needed amount.

But the condition of the rolling stock is cause for alarm. For example, at the end of May a coal train inspection found ten cars that were in poor operating condition. Gondola car No. 6753810 had a broken traction yoke and in two adjacent cars' doors were broken and wheel rims were damaged. There were similar defects in other railroad cars.

Tank cars are in no better condition. Frequently they are so drenched in fuel oil that you can't even get near them.

The deputy chief of the electric power station's fuel and transport shop, V. Mel'nikov, reports that the problem is not so much aesthetics as it is that the tank cars are carrying a three to five ton excess ballast consisting of the remainders of oil products that were transported previously. These remainders can only be removed by putting them through steaming stations. It has obviously been a long time since they have had such a "bath."

The power station workers do not have steaming facilities and for them to do the job after emptying the cars requires a lot of manual labor and time. We note that most often such ballast comes from stations at Ishimbayevo and Allaguvat on the Kuybyshev railroad and Kherson on the Odessa railroad.

There are also other problems which scarcely promote the efficient use of rolling stock. Every 24 hours as many as 1,200 gondola cars and 500 tank cars reach the the approaches to the GRES. But sometimes there are not enough tracks at the station to receive all of these cars. After all, besides the fuel, many boxcars of cement for the electric power station that is being built nearby are also arriving in Energodar. Sometimes the boxcars of cement tie up all of the tracks, leaving no room for the incoming fuel.

This is the situation here with the scarce gondola cars and tank cars. The situation is made worse by the fact that a large number of the cars are in need of repairs and there is essentially no base here for that purpose. Many of the malfunctions have to eliminated by using a hammer and a crowbar.

The senior foreman of the PTO /equipment maintenance point7, A. Khablenko, says that the GRES board of directors and the Zaporozh'e railroad section know that the labor intensive work is being done manually. There have been discussions about this for quite awhile, but no progress has been made. Although there is an urgent need to equip the track that has temporarily been set aside for repair work with a gantry crane and a "Donbass" repair machine, the section managers admit that so far they have not extended a helping hand.

Coal Shipments Behind Schedule

Moscow GUDOK in Russian 2 Jul 81 p 1

/Article: "Coal Shipments at Increased Rates"7

/Text7 During June there was a concerted effort to supply consumers with coal on a timely basis. The collectives of the Kemerovo, Tselina, Northern, Southeastern, North Caucasus, Eastern Siberian, Sverdlovsk, Alma-Ata, Central Asian and L'vov railroads fulfilled the plan; several railroads managed to fulfill their plans as well as an increased assignment. On the whole throughout the rail system the plan was overfulfilled by 640,000 tons; but the increased assignment fell short by 1.4 million tons.

A significant portion of the fuel remained in place because it was not presented for shipment and because there was a poor supply of railroad cars. At some points the railroad workers did not ensure the full and timely supply of cars. In just one month on the Kemerovo and Donetsk railroads enterprises failed to unload more than 12,000 gondola cars.

The requirement of the day - "gondola cars are to be used primarily for transporting coal" - is still not being followed everywhere. Frequently they are being used to carry other cargoes, which disrupts the plans for regulating the handover of gondola cars. On the October railroad during the month of June 3,000 gondola cars in excess of the plan were loaded, but 1,200 were not unloaded on the Sverdlovsk railroad - correspondingly 7,000 and 3,000. The commanders of these railroads, as well as those of the Southeastern, Azerbaijan, Alma-Ata and South Urals railroads seem to have forgotten about the need to maintain regulartory discipline.

The July plan is rather tight. The average 24-hour load as compared with that reached in June throughout the rail system is increasing by 80,000 tons. Just as before, crucial roles in creating the fuel balance are to be played by the Kemerovo, Tselina and Donetsk railroads. Moreover, one must take into consideration that they will be forced to work in a more complicated situation in connection with an increase in passenger service, sizeable shipments of equipment into regions where harvest operations are in progress and the start of the mass shipping of agricultural product.

Situation in Late July

Moscow GUDOK in Russian 22 Jul 81 p 1

/Article: "GUDOK's Fuel Dispatch"7

/Text7 In July the coal unloading task remains enormous. It has already exceeded 2.5 million tons. As before the situation on the Donetsk railroad and in the Kuzbass is serious. As in past months, the main reason for the undershipping of coal is the non-fulfillment of assignments for handing over empty gondola cars by the regulatory railroads.

It is true that the situation improved slightly on 20 July. But, strangely enough, this only served to once again demonstrate the great damage done to the shipping of coal by the lack of discipline on the part of the workers of the regulatory railroads. The problem is that on this date they managed, finally, to achieve an increase in the supply of empty cars to the coal railroad lines. Loading increased immediately. Even in the Donbass, where the railroad workers often blame their problems on the fact that the shippers do not present the fuel for shipment, on July 20 they succeeded in shipping 12,000 more tons of coal than they have been shipping on the average every 24 hours. Still, the railroad workers were unable to fulfill the norm.

The managers of the Azerbaijan railroad, which consistently does not fulfill its regulatory assignment, deserve particular severe reproach. This railroad is supplying 135 to 170 empty gondola cars every 24 hours against a norm of 350. Unfortunately, even the strict reprimands, which were given recently to the railroad managers, did not serve as a lesson.

Fulfillment of the assignments for loading coal and the observance of regulatory discipline are linked very closely. The transport commanders must not forget this for one minute.

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RAILROAD

OPERATION OF BRAKING SYSTEM FOR LONGER, HEAVIER TRAINS DETAILED

Moscow ELEKTRICHESKAYA I TEPLOVOZNAYA TYAGA in Russian No 6, 1981 p 19

/Article by Doctor of Technical Sciences and Deputy Director of the All-Union Scientific Research Institute of Rail Transport: V. G. Inozemtsev: "Braking Systems of Trains Weighing 10,000 Tons"/

/Text/ On the Moscow Railroad two eight-axle electric locomotives are used to pull freight trains weighing 10,000 tons. One locomotive is placed in front and the other in the rear. In motion each of the electric locomotives moves with one raised current collector; when starting each uses two current collectors. This provides a more reliable current collection and prevents the contact wire from burning out. The use of heavy trains is permitted on sections which have stay chutes with a slope of up to .012, at an outside air temperature of not less than minus 30 degrees C. during daylight hours.

The locomotive in front of the train is equipped with an operator's valve No. 394 (395), 222M with a VA lever position, with a modernized stabilizer which provides the rate for reducing supercharged pressure from 6 to 5.8 kilogram force per square centimeter within 80 to 120 seconds, and with a brake failure warning device that is equipped with a No. 418 guage. The rear locomotive also has a brake failure warning device that is equipped with a No. 418 guage.

Heavy trains do not include double-axle railroad cars carrying non-standard size cargo of a third or greater class, cargoes with a charge greater than 14 and passengers. They also do not include container cars and cars with No. 320 air distributors. A heavy train has a length of not less than 400 and not more than 500 axles and a weight of up to 10,000 tons. The rear locomotive is also connected with the train's primary braking system. Moreover, the double traction valve is opened, and the operator's valve lever is placed in the train position.

The automatic braking equipment is prepared and tested separately in each train comprising the heavy train. This is done in accordance with existing instructions. After the train has been formed and the locomotives have been coupled, the automatic braking system is completely tested. In the train position the operator's valve in both locomotives is maintained at a charge pressure of 5.3 to 5.5 kilogram force per square centimeter. After joining the prepared trains and coupling the locomotives the operators of the front and rear locomotives increase the pressure in the equalizer reservoir to 6.5 - 5.8 kilogram force per square centimeter and place the valve lever in position I; then they switch the lever into the train position. After no more than 15 minutes following the start of the charge the operators check the current density of the train's braking system.

The time norms depending upon the number of axles in the train for each 1,000 liters of the main reservoirs are as follows: for 401 to 450 axles - 26 seconds and for 451 to 500 axles - 22 seconds. The current density of the primary braking system are checked from both the forward and rear locomotives and given an average value. The result of the check from each locomotive depends upon the the charge pressure and the distribution of the dispersions in the train.

Upon a command from the inspector the operators establish a braking mode from both locomotives by reducing the pressure in the primary system by .7 to .8 kilogram force per square centimeter; then the valve lever in both locomotives is placed in position IV (overlap with feed). Then the operator of the rear locomotive engages the automatic braking system after an additional charge of the primary system and testing the warning device light "TM" of the No. 418 guage, which characterizes the normal movement of compressed through the entire braking system. The automatic braking system is deployed by increasing the pressure in the equalizer reservoir with the valve lever in position I from 6.3 to 6.5 kilogram force per square centimter from the front and the rear locomotives.

The value of the first braking mode is .6 to .7 kilogram force per square centimeter. Operational braking from the front locomotive is performed by putting the valve lever in position V and holding it in this position until pressure in the equalizer reservoir is reduced by .5 to .6 kilogram force per square centimeter with a subsequent switch position VA. After receiving the needed charge the lever is switched to position IV.

The repeat braking mode is performed by placing the valve lever in position V. The operator of the front locomotive radios the rear locomotive within 10 to 15 seconds when operational braking is required. The operators gives the command, "Prepare to brake by mode" and names the value of the impending braking (for example, .7 kilogram force per square centimeter). In turn the operator of the rear locomotive must respond, "I understand, to prepare to brake by mode" and then he repeats the value of the mode. While executing operational braking, the operator of the front locomotive simultaneously transmits the command "braking" to the operator of the rear locomotive. Upon this command the operator of the rear locomotive charges the equalizer reservoir by putting the lever in position V at the assigned value of mode and switches the valve lever to postion IV.

When necessary the operator of the forward locomotive performs emergency braking, after which he transmits to the rear locomotive the command "emergency braking". Upon this command the operator of the rear locomotive switches the valve lever into position VI, turns on the sander and brakes the locomotive using the auxilliary brake with maximum pressure in the brake cylinders. If the operator of the rear train is the first to notice something that is dangerous to the motion of the train, he immediately applies the emergency braking system and simultaneously transmits to the operator of the forward train the command "emergency braking". Upon this command the operator of the forward locomotive also applys the emergency braking system.

When it is necessary to deploy the automatic brakes the operator of the forward locomotive does so and radios the operator of the rear locomotive the command "deploy". Upon this command the operator of the rear locomotive applies the brakes. The deployment of the automatic brakes is executed by placing the operator's valve lever in position I and then into the train position; this is done in accordance with a procedure recommended for trains having up to 250 axles.

If while pulling the train on the rear locomotive the warning light "TM" , which signals that the No. 418 guage has been activated, the operator of the rear locomotive switches the operator's valve lever to position III. When the radio malfunctions this operator by switching the traction on and off orientates himself to the track and the speed of the train; braking is done in stages of .8 to .9 kilogram force per square centimeter when the "TM" warning light comes on.

The operator of the rear locomotive deploys the automatic braking system when there is a disruption in radio communications by switching the operator's valve lever to position II after increasing pressure in the primary braking system or after releasing compressed air through the opening in the operator's valve and also after stopping the train.

The mode charts for driving such trains are developed by taking into consideration the application of the maximum force from the locomotives at the front of the train of not more than 95 tons. The tractive force of the rear locomotive must not exceed 50 tons; and the current force, required by both locomotives, must always be less than the maximum permitted according to conditions of the traction electric power supply.

When starting, the tractive force of the rear locomotive is simultaneously included with the lead locomotive, without permitting the rear locomotive to start with its traction turned off at the expense of affecting the automatic coupling of the rear railroad car. They select and reject traction positions (except during emergency braking) in this manner so the tractive force can increase from 0 to the maximum value and can be decreased from the maximum to 0 no faster than within 25 seconds.

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CHANGES MADE IN D1 DIESEL

Moscow ELEKTRICHESKAYA I TEPLOVOZNAYA TYAGA in Russian No 6, 1981 pp 24-27

/Article: "Modernization of the D1 Diesel-Train"7

[Excerpt] The series D1 diesel trains, which were designed in the Hungarian Peoples Republic, are now in use in suburban transport on the Moldavian, L'vov, Odessa, Baltic, Donetsk, Gor'kiy, Moscow, Southeastern and October railroad lines. The electrical equipment of these trains from No. 201 have undergone substantial design changes.

As a rule, the depots which use the D1 diesel trains do not sufficient information and documentation concerning these design developments. This leads to difficulties during maintenance and repair of the diesel trains. Among the difficulties encountered are first of all questions having to do with the quality of the repair work, the reliability of operation and ensuring safety in motion.

At present the main administration of the USSR Ministry of the Railways' locomotive fleet is working on the specialization of locomotive depots and diesel train depots. Concentrating on a specific railroad or at a diesel train depot of one design group creates the most favorable conditions for their maintenance and repair. However, at present at several depots on the Donetsk, L'vov, Baltic and other railroad lines there are instances when there are several different models of the diesel train in operation at the same time.

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PORT PARTY COMMITTEE IMPROVES JUNCTION'S OPERATION

Moscow VODNYY TRANSPORT in Russian 15 Aug 81 p 2

[Article by V. Bezruchenko, secretary of the party committee of the port of Odessa: "The Port's Combat Headquarters"]

[Text] Tens of thousands of tons of diverse cargo have been handled by our work force over and above the target for the 10th Five-Year Plan, new records have been set for labor efforts, and thousands of ship in-berth hours have been saved. These achievements of the port became possible thanks to the persistent work done by our party organization, which numbers nearly 1,300 members in its ranks. As is well known, our party members were among the initiators of the comprehensive competition of the oblast's transportation workers, which was commended by the CPSU Central Committee.

Soon after publication of the decree of the CPSU Central Committee on the Leningrad transportation junction a special meeting was held of the port's party committee, and then--an assembly of the party activ of the transportation junction. Pursuant to the decisions adopted at the meeting, open party assemblies were held in party organizations at which the decree was discussed, specific measures were outlined to considerably speed up cargo handling and to strengthen contacts between related entities in the port of Odessa, the Odessa port railroad station and the Odessa division of the Odessa Railroad, trucking enterprises, and the Odessa office of the all-union association Soyuzvneshtrans.

Our relations were strengthened considerably with the secretaries of the party organizations of the enterprises that make up the transportation junction. These relations have become more concrete and purposive in nature. The joint measures of the port's party committee and party bureau of the Odessa port railroad station, which have vigorously supported the initiative of the work team of longshoremen and machine operators No 245 under the slogan: "Maximum Static Load on Every Railroad Car!", have helped to generate such a patriotic movement as the march of "1,000-tonners" and "2,000-tonners." As a result about 3,000 additional railroad cars were made available.

Party organizations also played quite a role in launching the large and important effort to discharge socialist obligations of the team headed by party member V. Zimoglyad for additional unloading of railroad cars. This collective did quite a bit toward widespread dissemination of its initiative. A report on the effort of the team and its imitators was delivered at meetings of the port party committee and the party committee of the first cargo area.

The work of the coordinating group of the Odessa transportation junction and the activity of enterprises in related activities have constantly been in the field of vision of the port's party committee. Participation in the conferences of the coordinating group makes it possible for the party to constantly exert pressure toward settlement of issues related to increasing the efficiency of the transport process. One of the decisions of the coordinating group called for intensifying the handling of grain through the Odessa port grain elevator and in the first stage to increase the number of railroad cars loaded with grain from vessels from 60 to 80, and then to 120.

Certain steps on the part of the grain elevator were necessary in order to solve the problems related to shipping out 80 cars. It was at this point that intervention of the port's party committee was needed; it exerted an influence on the management of the elevator through party channels and the UkSSR Ministry of Procurements. Representatives of the ministry who came to the scene helped to solve the problem.

As a rule many problems of speeding up cargo handling are discussed and resolved in joint meetings of the party-economic activ of the enterprises of the transportation junction. This is especially important now when collectives are facing the problem of speeding up the transshipment of foodstuffs. First of all a staff headquarters was created in the party committee to intensify the handling of food cargo; it was headed by deputy chief of the port for operations N. Pavlyuk and deputy secretary of the port's party committee A. Badil.

From the first days of its operation this voluntary entity extended party control over all problems of speeding up delivery of cargo to consignees. In a comparatively short time a number of problems were solved. Take, for example, the shipment of rice in bags. Along with the general improvement of the performance of work teams of longshoremen and machine operators headed by the party members N. Tymun', Yu. Franchuk and M. Matveyev, they also managed to increase the output quotas they fulfilled. These collectives have achieved high results: The team of N. Tymun' handled 410 tons of rice in bags in one shift, and that of B. Kosarenko 425 tons.

Thanks to the staff's influence we were able to carry out a number of organizational measures. For the first time the motor vessel "Lozin'," bringing rice in bags, was unloaded on both sides: on the shore side into railroad cars, and on the sea side to a river motor vessel in the "Pavel Postyshev" series--by means of two floating cranes.

An analysis conducted by economists commissioned by the party committee showed that there is a large potential for intensifying the trucking of cargo from the port both for local delivery and also to other cities. Last year the following experiment was carried out in the use of trucks to carry flour to Ukrainian cities. But only 850 tons could be carried. Then consignees gave up this service, arguing that shipping costs were too high.

We put the problems that had arisen before the respective organizations, arguing that the costs would be repaid by virtue of the faster delivery of freight to consignees, while railroad cars would be made available. This year the trucking of rice from the port to various centers in our republic has continued. A special technology for loading trucks with bags of rice has been worked out for this purpose; these operations are planned daily. Plans call for bringing the daily volume of cargo handled up to 1,000 tons.

Party influence has been manifested with particular clarity in the organization of socialist competition. These matters have been repeatedly taken up in sessions of the port's party committee and also those of party committees and bureaus of cargo areas and economic entities. Here again our particular concern was to speed up the hauling of food cargoes out of the port. It is important to note the fact that the timely support of the valuable initiative of the work team of longshoremen and machine operators in organizing weekly socialist competition for the prizes of the large-circulation newspaper ODESSKIY PORTOVIK helped to invigorate the competition in the areas where this cargo is handled. Along with representatives of the management, members of the party committee took part in organizing it. We carefully analyzed its progress and efficiency, we have been giving every form of support to everything that is new and that is generated on the docks during this competition and it helps to speed up the shipment of cargo.

It is indicative that in the very first month of this competition labor productivity in the transshipment of food cargo rose 10-12 percent.

Thanks to our businesslike contacts with party organizations of related sectors, they also became involved in this competition. Personnel of the Soyuzvneshtrans office were the first to support us.

It is not only directly through production activity that the party organization exerts an influence on operation of the transportation junction.

Quite an important role in increasing the efficiency of the transportation junction has been played by the plan for development of the social, consumer and cultural services of enterprises of the Odessa transportation junction in the 11th Five-Year Plan and by joint measures: recreation evenings, excursions, the field games of the complex of state transport organizations of the transportation junction for the prizes of the newspaper ODESSKIY PORTOVIK. All these and other forms are most intimately bound up with solving production problems, the rise of labor productivity, and raising operating efficiency and the quality of performance.

The port's party committee has drafted and is now carrying out a comprehensive program for exerting party influence to make the transportation process more efficient. It seems that it will yield fruit in speeding up the handling of cargo and in fulfillment of the demands of the 26th CPSU Congress with respect to increasing the cargo traffic of maritime transport.

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OCEAN AND RIVER

LABOR WATCH REPORTED

Moscow AGITATOR ARMII I FLOTA in Russian No 12, Jun 81 pp 26-27

[Article by Captain 1st Rank (Reserve) A. Klyuyev]

[Text] The Soviet Union is a great maritime power having at its disposal a mighty sea and river fleet. It consists of nearly all existing classes of maritime vessels known to world steam navigation and embodies the best achievements of scientific and technical progress.

At the beginning of the 11th Five-Year Plan period the steamship lines of the Ministry of the Maritime Fleet had 1,743 transport vessels with a total deadweight of 18.6 million tons, including 1,428 dry cargo vessels with a tonnage of 11 million tons, 310 tankers of 6.5 million tons and 10 combined vessels of 1.1 million tons. Currently vessels flying the USSR flag call at more than 1,400 ports of 123 countries in the world.

Maritime and river transportation are important sectors of the national economy and a composite part of the country's unified transportation system. As a result of the tireless concern of the Communist Party and the Soviet Government the maritime and river fleet is being constantly developed and improved.

During the years of the 10th Five-Year Plan , for example, the Soviet maritime merchant fleet has been replenished with 238 new vessels.

Added to the transportation fleet were also the world's largest railway super ferries of the "Geroi Shipki" class which operate on the Ilichevsk-Varna line. They take on more than 100 freight cars abroad.

A new major step has also been made in developing maritime transportation in the regions of the Far North, Siberia and the Far East. As a result of the development of the icebreaker and icebreaker-transport fleet and improvement in Arctic navigation by using the atomic icebreakers "Lenin," "Arktika" and "Sibir" the western sector of the Northern Sea Route from Murmansk to Dudinka has been transformed into a year-round main navigation route.

A unique delivery without transhipment from Leningrad via the Northern Sea Route and the Yenisey River of assembled multiton hydroturbine wheels for the Sayano-Shushenskaya GES was accomplished for the first time in 1980.

In essence a new and important achievement during the past five-year plan period was the development and introduction in Arctic navigation of shipping cargo in winter by icebreaker-transport vessels with the aid of powerful icebreakers and unloading it on fast ice. This transportation and technological system created opportunities for providing sufficiently dependable and steady supply to geologists and construction workers developing natural resources in the Yamal Peninsula and other regions in the Far North.

The coastal base, including ports, ship repair plants and social welfare projects was developed parallel with replenishment of the maritime and river fleet. Container terminals were put into operation in Leningrad, Ilichevsk, Arkhangelsk and Nakhodka.

In the majority of the country's ports consolidated complex teams became the basis for labor organization in loading and unloading work. They have been created after the example of the team led by Hero of Socialist Labor Anatoliy Baranovskiy (Ilichevsk port). More than 90 percent of dockers have been working such teams by the end of the five-year plan period.

The initiative of collectives of seamen, rivermen, railwaymen and motor vehicle drivers of the Leningrad transportation center, which has been approved by the CPSU Central Committee, has been widely disseminated in the sector. The essence of their experience is coordinated and efficient work of various kinds of transportation. By the end of the 10th Five-Year Plan the majority of maritime and river ports in the country were working according to their method.

As a result of selfless labor of all workers in the maritime and river fleet and despite difficulties, fulfillment of the basic five-year plan tasks was ensured.

Enterprises of the Baltic, Latvian and Novorossiysk maritime steamship companies as well as the Northwestern River Steamship Company successfully fulfilled five-year plan tasks in the sector. Among leading collective were the crews of the motorships "Vladimir Ilich" (Captain G Mitenev), "Skulptor Vuchetich" (Captain N Vetrishko) and "General Leselidze" (Captain Z Pataradze).

The sector's high labor indicators are a result of selfless work of seamen, rivermen, port workers, ship repair workers and engineering and technical personnel and great organizational and educational work of party, trade union and Komsomol organizations in skillfully directing the initiative and energy of collectives toward successful fulfillment of outlined plans and adopted socialist pledges.

Delegates to the 26th CPSU Congress communists M.Popova, crane operator in the Nakhodka port, and M.Serykh, captain of the motorship "Mikhail Prishvin," contributed their share to fulfillment of 10th Five-Year Plan tasks.

The party and government highly appraised the selfless labor of workers in maritime and river transportation. The title of Hero of Socialist Labor was awarded to Yu. Kuchiyev, captain of the nuclear-powered vessel "Arktika," to B. Sokolov, captain of the nuclear-powered icebreaker "Lenin," and to many others.

For outstanding successes in work and achievements in science and technology, a large group of workers in the sector have been awarded USSR 1980 state prizes, including Comrades S.Makarov, N. Gorban, Yu. Mizerskiy and others.

The 26th CPSU Congress has set great and responsible tasks before workers in maritime and river transportation. During the new five-year plan period these sectors must become an even more important and promising composite part of the country's economy and must more completely satisfy the growing requirements of the national economy in foreign trade and coastal transportation. It is planned to increase freight turnover in maritime transportation by 8 to 9 percent and in river transportation by 19 to 20 percent; to improve utilization of the fleet, seaports and ship repair enterprises; and to constantly increase their capacity. One of the sector's main tasks is to ensure year-round navigation in the western part of the Northern Sea Route and to promptly deliver necessary freight to the regions in the Far North and the Far East.

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OCEAN AND RIVER

CARGO HANDLING EFFICIENCY RAISED IN NOVOROSSIYSK

Moscow VODNYY TRANSPORT in Russian 15 Aug 81 p 1

[Article by S. Mikhalev: "Toward the Targets Which Have Been Outlined"]

[Text] It is a particularly feverish time for the work force of the Novorossiysk maritime commercial port. Hundreds of tons of varied cargo for the national economy is being handled daily by the longshoremen and machine operators, who have been handling 15 vessels a day. There has been a particular increase in the volume of cargo requiring a great deal of labor--packaged cargo and cargo in bags. But the dockworkers of Novorossiysk prepared for this in advance. Steps were taken to increase the port's traffic capacity and to speed up the handling of railroad cars. By their own efforts the port personnel prepared additional bins for bulk cargo and did preventive repairs on equipment.

The port's work force has been successfully fulfilling socialist obligations adopted for 1981. The planning target for 6 months was overfulfilled by 300,000 tons of cargo handled, which exceeds several times over the figure anticipated in the socialist obligations. Ship in-berth time during cargo handling was reduced by 5,580 hours, which is also considerably higher than projected. Quite a bit of credit for this goes to the progressive work teams of longshoremen and machine operators headed by the experienced team leaders A. Krut'ko, N. Isayev, G. Suslov and I. Lobodenko.

Much attention is being paid in the port to conservation and thrift. To be specific, a set of specific measures has been worked out to fulfill the decree of the CPSU Central Committee and USSR Council of Ministers entitled "On Intensifying the Effort Toward Conservation and Optimum Use of Raw Materials, Fuel and Energy and Other Physical Resources." Since the beginning of the year more than 300,000 kilowatt-hours of electric power and about 250 tons of standard fuel have been saved.

Efficiency experts and inventors, who have been striving to find new potential for improving the operation of machinery and equipment and to improve the working conditions of port workers have also made a notable contribution to the success of the port of Novorossiysk. The economic benefit from adoption of efficiency suggestions has been more than 180,000 rubles since the first of the year.

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OCEAN AND RIVER

RESERVES OF MARITIME PORTS EXAMINED

Riga SOVETSKAYA LATVIYA in Russian 17 Jan 81 p 2

[Article by Ye. Kuzmin, chief technologist of the Riga maritime port and merited rationalizer of the Latvian SSR: "The Reserves of the Maritime Ports"]

[Text] Many innovations came to the quays of the Riga maritime port during the 10th Five-Year Plan. Thanks to them our collective has been processing most vessels ahead of schedule and has been achieving a steady reduction in layover days. Definite successes have also been achieved in improving processing of railway rolling stock. It is well known that the Riga transportation center has been creatively using the method of Leningrad workers, approved by the CPSU Central Committee, by working in close cooperation with related enterprises and using a continuous mutually coordinated plan-schedule.

The 11th Five-Year Plan sets great tasks before Riga dockers and opens new perspectives. The first stage of the port's container terminal in a new cargo region on Kundzin Sala Island was recently accepted. By stage transfer of roll on-roll off cargo and containers from the first operational region to the new region on the island will begin soon. Construction of the second stage of this complex will also be continued which will make it possible to process containers and most of the ro-ro cargo at new quays by the end of the 11th Five-Year Plan.

The constant growth of production capacities has created some problems and difficulties for the collective. For many years Riga port has perhaps remained in the most disadvantageous position among all Baltic ports due to the extremely slow development of existing repair and construction and machine bases. It is precisely at these sectors that the big gap between our port's requirements and possibilities is greatly felt. Reconstruction of operating installations and implementation of many rationalization ideas has been delayed and the production of very much needed transshipping devices, which are not produced by sector enterprises in a centralized manner, has been hampered. There is also lack of a base for prompt repairs of some production installations and transportation machines.

All of these difficulties must be considered when we talk about work perspectives during the new five-year plan. Under conditions of our collective's intense balance of manpower resources the foremost task is to sharply increase labor productivity by using all internal resources more fully and, first of all, by reconstructing and technically reequipping operating capacities.

The draft plan of the CPSU Central Committee aims us toward developing maritime port capacities, particularly in Latvia. Therefore, we consider it expedient to make this provision somewhat specific by giving it the following wording: "We shall continue developing maritime ports by constructing new basic as well as auxiliary capacities and also by expanding, reconstructing and technically reequipping existing ones."

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SHIPBUILDING IN KIEV REPORTED

Kiev PRAVDA UKRAINY in Russian 5 Aug 81 p 4

[Article by I.Mizhen: "Leading Vessel on a Building Slip"]

> [Text] An unusual vessel is being built at the Kiev shipbuilding and ship repair plant. Its size--110 meters long and 16 meters wide--is exceptional for a river vessel.

This dry cargo vessel of the D-080 "river-ocean" class will be a leading one in a new generation series which are called upon to replenish the river fleet with combined navigation motorships of increased carrying capacity.

The use of such vessels will make it possible to avoid additional transshipment of cargo and considerably reduce the price of shipment. The carrying capacity of the river giant-3,600 tons--is more than double of the currently operating vessels. Various equipment, containers and loose bulk cargo can be placed on the deck of the "new vessel." Shipment on deck facilitates loading and unloading work and speeds it up. Special folding platforms have been provided for various port equipment to drive abroad.

Two high-capacity engines of 880-horsepower each will make it possible to develop a speed up to 20 kilometers per hour and the two screw propellers and four rudders will make the vessel so maneuverable that it will be practically able to turn on a dime.

Centralized control of all services will be concentrated in the pilothouse and as a result the river giant's crew will number only 18 people. All conditions have been provided for their normal work and rest. Every command member will be accommodated in an individual cabin. The vessel will have an air conditioning system and a Finnish bath.

At present ship hull builders have started assembling the engine room unit. It is planned to begin building slip welding of the hull in August. All work is progressing according to schedule due, in no small measure, to the supplier-plant.

Would it be possible to further increase the carrying capacity of the "river-ocean" class vessels? We asked this question of A.N.Moskalenko, chief shipbuilder of the Kiev shipbuilding and ship repair plant.

Our cargo ship will be one of the largest vessels of its class in the USSR river fleet system. Its basic dimensions and technical data are determined by the winding of the fairway and the width of the locks. In the future it is planned to build an accessory barge which will make it possible to increase the carrying capacity of the assembled convoy up to 7,500 tons. The length of such a convoy will reach 230 meters. The high maneuverability will permit its normal navigation under the Dnepr conditions.

According to numerous technical and operational data our cargo ship will excel similar vessels built abroad. It will make its maiden voyage during the 1982 navigation season.

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DOCKERS OF RIGA SEAPORT DEMONSTRATE THEIR ABILITY TO WORK SKILLFULLY

Moscow VODNYY TRANSPORT in Russian 18 Aug 81 p 2

[Article by our own correspondent V. Lushchevskiy: "Watchword at the Quays is Quality"]

[Excerpts] Dockers of the Riga seaport have repeatedly demonstrated their ability to work in an organized manner and skillfully. During the past 6 months they were able to increase the volume of cargo processing compared with the same period of the preceding year by 15.9 percent. As regards food products this increase has been characterized by an even more convincing figure of 35 percent. The winners of the all-union competition processed 734 vessels in the 6-month period, saving 560 vessel-days.

Nevertheless the successes of port workers in some important qualitative indicators are far from being so impressive and reassuring. During the 6-month period the port has received 440 complaints because of unsafe cargo processing and a considerable part of them had to be recognized as just. Losses from this have already totaled more than 24,000 rubles this year.

The struggle against trade waste, improvement of cargo processing quality and concern for its complete safety--these aspects of the collective's activities are now being put to the forefront. Experience proves that one of the main areas for economizing lies exactly here. The rivulets of losses are very many-sided and as a matter of fact they have not been dammed at the quays, nor at the warehouses, nor at the Riga-Krasta port station and hence the unfavorable final results.

There is no doubt that the quality of cargo shipment and transshipment is also affected by the condition of road surfaces in the port area. But all is not well in this matter also. The entire 10th and 11th quays are full of pits and potholes, and the damage to surfaces at many open cargo storage areas has not been eliminated for months.

Cargo must be handled with care and in a businesslike manner. This is the only way the dockers can insure themselves against complaints from recipients of goods. But what are the collectives of the largest port warehouses--the first and the third--able to offer and do in this respect when roofs here have been leaking for a long time and it is literally necessary to save cargo from inundation during rainy weather?

It is also necessary to mention such an unfortunate loss of goods stored at quays and warehouses of the port as petty theft. Although it is customary to refer to them as petty the amounts of these losses are gradually becoming quite impressive. It should be noted that in every such case an official report is made to supervisors of facilities and public organizations.

Much has been written and said about mishaps with passenger cars which are being dismantled during delivery by railway and in the process of transferring through the port. It turns out that a stop has not been put to this evil up to the present time. Just to repair vehicles transshiped at Riga quays 7,100 rubles have been paid during a 6-month period. During loading operations the dockers often sit at the wheel of a car in dirty clothes, touch the seats with greasy gloves and drive at high speed aboard the vessel. It seems that everything that has been said confirms once again the thought that the qualitative side of work must continue to occupy an important and paramount place in workdays of Riga dockers because the key to economizing is here. This is the basic position in the struggle for eliminating excess costs and losses.

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NUCLEAR SUBMARINE'S READINESS FOR IMMEDIATE FULFILLMENT OF NEW TASKS

Moscow GUDOK in Russian 24 Jul 81 p 4

[Article by Captain 3d Rank S. Bystrov: "And It Is Ocean Once Again"]

[Excerpts] With difficulty, as if tearing away from something alive, the upper conning tower hatch of the nuclear submarine was raised. Heavy drops of water remaining in the hatch during surfacing fell down on vessel commander Captain 1st Rank Gennadiy Nikitin. It was the same ocean water in whose depth the nuclear missile submarine has spent several long and difficult weeks without surfacing. The commander, who was always the last to close the conning tower hatch before beginning a voyage and the first to open it at its end, was also immediately surrounded by intoxicating ocean air which was delicious as a drink of spring water after prolonged thirst. Of course the air in the nuclear submarine's compartments meets the highest requirements regarding chemical, biological and other parameters. Nevertheless, it lacks the substances carried by winds, ocean and land.

The air streamed inside the nuclear submarine, spread across the central compartment and intoxicated everyone. It was the air of the homeland, the air of victory. Yes, of victory because the nuclear submarine successfully crossed many thousands of miles of ocean depths; the seamen returned cheerful and healthy after fulfilling the assigned combat training tasks. This made everyone glad because, during the current training year, personnel of the nuclear submarine became the initiators of socialist competition in the USSR Navy. The crew assumed very high socialist pledges which can be fulfilled only with a great deal of effort.

The commander climbed the bridge and was followed by the watch officer and the signalman. Gennadiy Nikitin glanced back and looked with a smile at the periscope behind his back--through its optics the seamen who are unable to come up very soon to see for themselves the world which has existed only in their imagination for so long have been admiring the ocean surface.

For submariners there is no greater joy than on surfacing to see that the world is the same as when they left it: peaceful, tranquil and happy. It is for the sake of the peaceful sky, the good sun and the Soviet people's confidence in their future that seamen go to sea for long periods of time. It is for this that they, who are cut off from ordinary life by water depth and a strong vessel hull, work strenuously and replace each other on the around-the-clock watches at the reactor, at the torpedoes and missiles and at the unending number of vessel mechanisms. Gennadiy Nikitin, who started his navy life at the Nakimov college in 1950, has already made 18 long-distance underwater cruises--the last 8 of them as a vessel commander. One would think that it can get boring and that fatigue would take its toll. But at sea and in the naval service there is something special and magnetic that draws people toward making voyages again. The kind of strong, firm people who both love and have the skill to match their strength against the elements and, if needed, also against the enemy.

Training battles became practically daily occurrences for the crew during cruises when at the sound of a siren the seamen rushed along the narrow passageways and dressed themselves on the run. Fires raged, water flooded the compartments and "enemy" vessel hydrolocators clattered trying to find the submarine. Of course all of this was for practice, but the strain of the will, the mind and the strength was all real for the submariners, and their combat skill grew with every training. The only thing that the ocean did not test the submariners on in its depth was rolling because ripples of the surface layers of water do not reach there. But in approaching the base now the waves made themselves to be felt. The powerful semicircular bow of the vessel buried itself in the foam and waves rolled onto the black body of the hull crushing themselves against the conning tower. The spray swiftly flew above the bridge, but people did not pay any attention to it. They searched for the distant native coast with their eyes.

There is a ritual of welcoming a vessel at the base which has been preserved from the time of war as a good naval tradition. The submariners are welcomed by crews of other vessels; the band plays, and the senior chief congratulates the crew, reviews the vessel and receives a report from the commander of the submarine who (also traditionally) concludes his report with words about the vessel's readiness for immediate fulfillment of new tasks. This time the admiral listened to the commander's last words with special attention:

"You mean, you're ready to put out to sea again?" he asked imperceptibly smiling.

"Yes indeed, sir," answered Nikitin.

"Very good. In...hours you must commence missile firing."

The remark appeared unexpected, but it did not confuse anyone. Not the submarine commander nor the commander of the missile unit nor the crew. Almost without any rest the seamen made preparations for a new voyage. Fresh products were brought to them and supplies were replenished.

The nuclear submarine approached the dive area; tight streams of water hit the ballast tanks, and the ocean closed down on the submarine. The sea bubbled at this place for some time, and then all traces were gone.

The huge vessel slightly rocks in the water. Unfortunately the submariners can only feel their firing in this manner without observing its most interesting moment: the departure of the missile from water. Rising suddenly from one environment, as if born in the sea foam, the missile swiftly penetrates another "overhead" ocean and flies toward its target. The more precisely it strikes the target, the higher is the appraisal of the crew's skill and the greater is the guarantee of success in real combat against any aggressor. This latest submarine missile attack has been appraised as one of the best in the vessel's history.

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OCEAN AND RIVER

RIVERPORT HAMPERED BY INADEQUATE TRUCKING

Moscow VODNYY TRANSPORT in Russian 15 Aug 81 p 2

[Article by A. Yegorov, deputy chief of the Kherson Riverport: "On Behalf of Businesslike Relations Between Partners"]

[Text] The work force of the Kherson Riverport exceeded the target for the 5-year plan by more than 1.6 million tons of the national economy's cargo handled and by 516,000 tons carried. To a considerable extent this success was furthered by adoption of the method of the Leningrad transportation workers. This is now the 3d year that our transportation junction has been operating according to a continuous schedule-plan.

The junction consists of the river and maritime commercial ports, the Kherson port railroad station, a shipping and forwarding enterprise, a fleet of trucks, a trucking enterprise, and a dispatcher section of UkSSR Glavrechflot [Main Administration of River Fleet]. As indeed everywhere else, a coordinating group was created to synchronize their work. It holds its regular meetings--once a week, every Tuesday.

Cooperation on the basis of the NPGRTU [continuous schedule-plan for operation of a transportation junction] made it possible for all the interrelated enterprises to improve their performance in meeting the needs of the economy for cargo shipment. The handling of vessels, railroad cars, and trucks was speeded up in the riverport. In recent years our work force has carried out important measures to increase the volume of river traffic: The fleet was replenished with new vessels, the old cranes were replaced by new ones with a larger capacity, and a number of other steps were taken. In the 10th Five-Year Plan as a consequence 51.3 percent more cargo was loaded and unloaded than in the ninth, and 45.3 percent more cargo was carried. Every bit of the growth was achieved by raising labor productivity.

But the potential for increasing the cargo traffic of the river fleet is not being fully utilized, though the need exists. Motor transport is holding things back. Over the last 5 years the volume of centralized trucking to and from the riverport has remained at the same level, and the delivery of packaged and containerized freight has dropped considerably. The point is that during these years the fleet of trucks for carrying containers and loading cranes have not increased in the trucking firms of the Khersonskaya Oblast Motor Transport Administration, nor have measures been taken to increase them--after all, the administration bears no responsibility whatsoever for this traffic. Nor have the personnel of trucking firms and the oblast motor transport administration been provided material incentives for fulfillment of centralized hauling of incoming and outgoing cargo.

Under the conditions that have been created the drivers allocated to centralized shipping operations drive their trucks first to the railroad station, and what remains goes to the riverport. Incidentally, there seems to be nothing else they can do: They are mainly asked to haul freight from the rail station, and they are not responsible for carrying cargo from the riverport and delivering it to us. As a result the enterprises and organizations are forced to ship the freight to points located on the Dnepr by rail, loading the rail cars on their own sidings. This is done by the Petroleum Refinery imeni Petrovskiy and many others.

Nor does the shipping and forwarding enterprise provide prompt trucking of bulk cargoes--gravel and builder's sand--from the port which have arrived by river. The arrival of cargo by river is held up because cargo accumulates in the port, including gravel from quarries located in Dnepropetrovskaya, Zaporozhskaya and Nikolayevskaya oblasts. Thus Kherson's construction organizations have to have gravel hauled from those quarries--once again, by rail.

Another snag in the operation of the riverport is tardy delivery of railroad cars to haul away cargo that has arrived in direct combined rail-water shipment. The cargo for transshipment lies in the port 2 or 3 months waiting for delivery of railroad cars, and sometimes the consignees even send out tracers for them. Moreover, this cargo is taking up the port's storage areas.

The volume of centralized trucking of incoming and outgoing river cargo needs above all to be sharply increased in order to correct these shortcomings.

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IL'ICHEVSK PORT HAS SUCCESS IN JULY

Moscow VODNYY TRANSPORT in Russian 11 Aug 81 p 1

[Article by V. Fedorov: "The Results of Intensification"]

[Excerpts] Here are only a few reports on achievements in labor efforts at the port's docks. In 4 days a unit of longshoremen and machine operators consisting of 16 men belonging to the 107th work team handled 714 tons of sugar in bags, which averaged 177.3 percent of the overall output quota. The same number of longshoremen belonging to the Komsomol youth work team No 312, headed by A. Kiriyazov, unloaded 566 tons of cargo in bags during a shift, fulfilling the quota at a level of 154 percent. Recently news went round the docks of the port about a new labor achievement by the work team of I. Vlakh, whose 13 members handled 258 tons of bagged cargo in one shift, which was 182.9 percent of the quota. The port's work force has been making a persistent endeavor to reinforce the achievements of every record output and to make it the everyday quota not only in the leading collectives, but indeed in all the UKB's [consolidated mixed work team].

How is this showing up in the operation of the port as a whole? Whereas up until 1981 the port workers of Il'ichevsk handled no more than four vessels with packaged cargo, their number has now doubled. This made it possible in June to process about 60,000 tons of this kind of cargo, that is, an average of about 2,000 tons per day. The results for July were still more impressive. During that month the handling of packaged cargo reached 102,000 tons. Beginning on 12 July the port regularly handled 4,000 tons or more of such cargo per day--which is twice as much as in June.

Perhaps this growth in intensification of the handling of vessels was achieved at the expense of lower pace of operations on other flows of cargo traditional for Il'ichevsk? By no means. Even though a portion of the cargo-handling equipment and labor resources had to be diverted to the most time-consuming cargo, a high pace of operation was maintained at all the docks in the port. Here are the figures from the daily summaries for the port: in unloading the motor vessel "Komandarm Matveyev" the 18 longshoremen and machine operators belonging to work team No 211 moved to the warehouse 1,260 tons of paper in bales--more than 200 percent of the overall output quota; longshoremen belonging to work team No 216 loaded 1,864 tons of steel, wire and other goods on the motor vessel "Belitsk," which was 165.8 percent of the planning target.

Intensification of cargo handling in the port of Il'ichevsk has been promoted to a considerable degree by the synchronized operation of related sectors and constant improvement of interaction on the basis of the NPGRTU [continuous schedule-plan for operation of the transportation junction], and by successful fulfillment of the unified plan for the transportation junction's economic and social development. Now in all transport collectives vigorous activity has been developed to seek out additional potential for raising efficiency and improving the quality of performance of the junction.

In discussing the operation of the port in July, we cannot but dwell on one aspect of the matter that is especially characteristic of the present strenuous summertime period. This year the port workers received considerable aid from party organizations of the republic and oblast, which sent to the docks teams of workers from industrial enterprises and student brigades. They were distributed among groups that included work team leaders, unit leaders, machine operators and instructors, and the most experienced longshoremen were assigned to these collectives. This approach to the matter made it possible in the process of cargo-handling operations to train the newcomers in the basic operations in a comparatively short period of time and to constantly keep a strict watch on the quality of cargo handling, on discipline, and on strict observance of safety rules.

Even by the 3d day of its work this team handled 240 tons of cargo from the motor vessel "Nonna Rafaella" in one shift.

The 424th work team, made up of youths of the student brigade "Akkord" from the Vinnitsa Pedagogic Institute, gave a good account of itself in cargo-handling operations. In handling bagged cargo this team fulfilled the overall output quota at a level of 140-150 percent. And in unloading alumina the students set the port's record in the labor effort, fulfilling the comprehensive quotas at a level of 235 percent.

Of course, by no means all the problems in speeding up the processing of vessels in the port of Il'ichevsk have already been solved. As in the past many vessels come to the port with cargo that has not been palletized. There is a shortage of pallets for palletizing it on the spot, and there is a shortage of wood for making pallets. As the number of work teams increased, the shortage of machinery, especially lift trucks, was felt more and more acutely. The uneven flow of railroad cars and river vessels had an adverse effect. Nevertheless, the results in July offer every reason for an optimistic forecast, the state task of speeding up transshipment and delivery to its destination of the cargo reaching the port will be fulfilled.

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OCEAN AND RIVER

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FLOATING SHIP REPAIR FACILITY SAID PROMISING

Moscow RYBNOYE KHOZYAYSTVO in Russian No 3, Mar 81 pp 46-50

[Article by A. D. Batuyev, L. V. Kashirin, A. P. Krivobok and A. V. Chizhas, Klaypeda branch of Giprorybflot (State Project Planning Institute of the Fishing Fleet)]

[Text] One of the most important ways of increasing the operating efficiency of fishing vessels is to increase the time spent on fishing grounds by reducing repair time, time spent in port, travel time to and from the fishery, and the time allotted to technical servicing and repair between trips.

Technical-and-economic computations have established that the additional capital investments and operating costs involved in augmenting the technical capability for technical servicing between voyages (MRTO) performed near the fishing grounds could be paid back if repair operations were expanded to a scale that ensured that fishing vessels would be attended to in domestic ports at 4-year intervals, where they would go, that is, for repairs related to restoration of class under the USSR Register or for modernization. Table 1 shows how effective it would be if fishing vessels received technical servicing between voyages at 4-year intervals and the scope of repair work done near the fishing grounds were expanded (MRTO-4). MRTO-4 can be done on domestic floating ship repair facilities located near the fishing grounds.

Table 1

	Fishing Grounds			
Coefficient of Increase of Fishery Time of Large Fishing Vessels Per Year as Compared to MRTO in Home Port	Northwest Atlantic	Central East Atlantic	Southeast Atlantic	Southwest Atlantic
When MRTO is performed in a foreign port	1.12	1.08	1.13	1.05
When MRTO-4 is done on the fishing grounds	1.25	1.18	1.41	1.40

As a function of their operating location floating ship repair facilities (PSRZ) may be of two types: coastal (PPSRZ) and seagoing (OPSRZ). The place where the PSRZ operates is a determining factor in selecting its architecture and main dimentions, which must provide for the possibility of its location in the cramped conditions of a protected basin or its maximum stability when exposed to the effect of external factors (waves, wind and current) so as to ensure favorable conditions for repair work and safety of the vessels being docked, as well as protection against the effect of waves on vessels which are tied up.

The annual program of ship repair and docking operations, which in turn determines the number of ways and the length of mooring space for repairing ships on the water, has a considerable influence on selection of the architecture and principal dimensions of the PSRZ.

Research and engineering computations were made of possible versions of the PSRZ for three MRTO-4 programs so as to take into account these prerequisites: the servicing of 28, 48 and 104 large fishing vessels per year.

An examination of the possible versions established that a PPSRZ cannot be built in the form of a single structure for a maximum calculated ship repair program requiring 5 building berths and 1,100-1,200 meters of mooring space.

A study of the question of the possibility of building an OPSRZ showed that the most suitable floating facility would be one with separate underwater and above-water parts, which would have a small effective waterline area. With adequate stability such a structure could have such large natural periods of all forms of rolling that in practice it would not fall into resonance with the wave motion that exists in nature. If the underwater part of the structure is made in the form of several streamlined hulls joined to the above-water part by separately located pillars which have an airfoil section along the waterline, such a structure would have relatively little resistance to movement and would have good roll characteristics (see the sketch) [sketch not reproduced]. The OPSRZ has to be self-propelled in order to eliminate drift caused by wind, waves and current, since anchoring is in practice unfeasible at the great depths of the high seas, and also for movement to a new location related to the movements of the vessels it serves.

Table 2 gives the principal characteristics which as a result of the computations were deemed to be acceptable for the versions of the PSRZ. The nautical characteristics of the OPSRZ-1 and OPSRZ-3 were studied by means of tests of models in an experimental basin and theoretically. The calculations assumed a wave height of 19 meters with 3 percent frequency; wind load of 200 kg per square meter at a wind speed of 56 meters per second; and a current speed of 1.5 meters per second. Results of the studies are presented in Table 3.

Table 2

Characteristic	PPSRZ-1	PPSRZ-2	OPSRZ-1	OPSRZ-2	OPSRZ-3
Type of architecture	Vessel with stern bolt port	Double-hull vessel	Structure with separate above-water and underwater parts joined by separate vertical pillars with small waterline area		

Table 2 (continued)

Characteristic	PPSRZ-1	PPSRZ-2	OPSRZ-1	OPSRZ-2	OPSRZ-3
Method of raising vessels up to 6,000 tons	Dry dock	On two pontoons between hulls	Vertical ship lift on trucks used for rolling it along the well deck		
Number of vessels attended per year	24	48	24	48	104
Total number of various types of repairs, units per year	44	87	44	87	188
Volume of ship repair work done, in thousands of cost-estimate hours	840	1,668	840	1,668	3,608
Number of vessels raised at one time	1	2	2	5	7
Design length, in meters	254.0	345.0	300.0	270.0	385.0
Overall beam, in meters	54.0	57.2	65.0	116.7	116.7
Freeboard, in meters	19.5	19.1	46.0	53.0	55.0
Draft, in meters					
Operating	9.1	8.7	24.0	28.0	28.0
Storm	--	--	18.0	21.0	21.0
Running	8.4	9.1	10.0	10.5	11.5
Threshold	5.5	5.3	5.0	6.5	6.0
Displacement, in thousands of tons					
Greatest	75.5	73.5	69.0	102.5	164.0
Threshold	45.5	42.5	33.0	49.5	78.0
Power of the main engines, in HP	16,600	21,120	17,400	24,800	24,800
Capacity of the power plant, in kwh	5,700	7,200	5,700	7,200	7,200
Running speed, in knots	11	11	11	11	11
Number of accommodations in cabins	700	1,100	700	1,100	2,120
Including:					
For the ship's crew of the PSRZ	196	234	196	234	313
For repair facility personnel	321	513	321	513	1,202
Self-sufficiency of navigation, in months					
For its own needs	3	3	3	3	3
To supply vessels being repaired	3	1	3	1	1
Construction cost, in millions of rubles	75	99	68	97	144

Table 3

Nautical Characteristics	OPSRZ-1	OPSRZ-3	Permissible Values
Angle of heel in seas of 3 percent frequency, in degrees	4.800	5.500	6.00
Linear speed at the side in seas of 3 percent frequency, in meters per second	--	0.300	1.25
Overload in seas of 46.5 percent frequency (relative)			
At the side	0.078	0.070	0.10
At the extremities	0.036	0.031	0.10
Dynamic angle of heel from the effect of a squall, in degrees	--	3.000	6.00
Amplitude of the bow's submersion in the water in head seas of 0.1 percent frequency, in meters	11.000	11.600	--
Height of the waves on the leeward side in seas of 3 percent frequency (in meters) at an ocean wave height of			
6 meters	3.000	2.500	3.50
11 meters	8.400	8.000	3.50
Maximum amplitude of displacement of the stern of a docked vessel with 0.1 percent frequency (in meters) for waves in the ocean of			
3.5 meters	0.080	0.080	--
6.0 meters	0.440	0.440	--

An analysis of the nautical characteristics of the models OPSRZ-1 and OPSRZ-3 made it possible to draw the following conclusions relative to the conditions of the Atlantic Ocean:

i. operation of the machine tools and dock operation could be assured during 99.2 percent of the calendar time of the year;

ii. ship-lifting operations could be conducted during 87 percent of the calendar time of the year assuming the ship-lifting point is protected with wave-damping structures and keel blocks and cribs are installed on the ship's lift to absorb the vertical displacements of the docked ship up to 0.08 meter;

iii. floating ships being prepared can be moored on the leeward side during 87 percent of the calendar time of the year;

iv. the safe standing of raised vessels on keel blocks is assured throughout the entire year;

v. the OPSRZ could have a vertical clearance so great as to entirely eliminate the shocks of waves to the platform;

vi. the external load acting against the OPSRZ can be taken by a hull with slanted trusses between the pillars and the separate parts of the hull.

The main dimensions of the coastal PSRZ and the OPSRZ-1 are at the level of present-day supertankers and seagoing floating platforms. The OPSRZ-2 and OPSRZ-3 could be built in four separate sections joined after launching. Most of this joining work would be done above water; only the lower part of the underwater hulls, which have a simple cylindrical form, would be joined underwater; caissons of simple construction would be used for this purpose and would later be used as repair caissons. These sections of the OPSRZ-2 and OPSRZ-3 differ little in size from a floating platform of similar design being manufactured on a series basis by the Finnish firm Rauma-Repola (length 108 meters, beam 70 meters). We should also note that vertical ship lifts and equipment for rolling ships on the deck, similar to those envisaged on the oceangoing PSRZ, are being installed by the Finnish firm Valmet on the LASH vessels of the series "Yulius Fuchik" being delivered to the USSR.

In examining the economic feasibility of building PSRZ a determination was made of the additional profit which could be obtained by large fishing vessels if they were converted to MRTO-4 performed on a PSRZ, as compared to present-day MRTO in the home port or in a foreign port. A straightforward pattern is observed here: The further the place where the PSRZ operates from domestic ports and the larger the program of ship repair, the shorter the payoff period of capital investments. In making the calculations for the versions of the PSRZ we did not envisage their use for intermediate storage of the fish products produced by the fishing vessels, though this function could be given to the OPSRZ-2 and OPSRZ-3 along with other functions (medical and cultural services, spare crew). Use of the PSRZ for intermediate storage of fish products would yield an additional benefit by reducing the idle time of fishing vessels waiting for refrigerated cargo vessels.

The feasibility of building one of the types of the PSRZ, coastal or oceangoing, is directly bound up with the problem of its location near the fishing grounds. This problem has economic, political and technical aspects:

i. the PSRZ is an enterprise deriving commercial gain from its activity, and therefore any state to which a port or territorial waters belong would be guided by interests which by no means always coincide with the interests of the owner of the PSRZ granting permission for a PSRZ to call at a port or to be set up;

ii. leasing a place for the PSRZ to be stationed in territorial waters of a foreign state would require additional funds;

iii. there are serious difficulties in connection with the PSRZ visiting a protected harbor or port of a foreign state;

iv. the PSRZ's large dimensions restrict the number of enclosed harbors and ports in which it could be placed.

The problem of locating the PSRZ near the fishing grounds pertains only to the coastal PSRZ.

The other problems involved in operation of the PSRZ--replacement of crews, recovery of production waste, environmental protection, supply and repair--are solved by technical means which are known at the present time.

Specialists of the GDR, Great Britain and the Polish People's Republic have made calculations of floating islands, ports and bases for serving fishing vessels considerably larger than those presented in Table 2.

So, in view of what we have presented, we can frame the following conclusions:

i. the present level of development of shipbuilding allows for construction of any of the types and versions of the PSRZ discussed here;

ii. economically it is most expedient to build PSRZ which could serve 50-100 large fishing vessels per year with all types of repair covered by the MRTO-4;

iii. in view of the conditions for location on any fishing grounds it is advisable to build the oceangoing PSRZ;

iv. the proposed type of architecture of the OPSRZ (see the sketch) [sketch not reproduced] affords the possibility of repairing ships on the high seas.

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BRIEFS

DAUGAVA PORT--Construction of the largest river port in the republic has started. The first hundreds of cubic meters of soil were raised from the Daugava bottom today for the water area of the new harbor. It will be located across from the commercial port and will help in unloading across from the commercial port and will help in unloading its quays and in releasing thousands of railway cars. The port will receive the first motorships next year. Its capacity is 1 million tons of processable cargo a year. [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 10 Jul 81 p 2] 9817

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MISCELLANEOUS

ACCELERATED DEVELOPMENT OF TRANSPORTATION DURING 11TH FIVE-YEAR PLAN

Moscow AGITATOR ARMII I FLOTA in Russian No 8, Apr 81 (signed to press 10 Apr 81) pp 6-8

[Article by director of the Unified Transportation Network Department of the Institute for Complex Transportation Problems of USSR Gosplan and candidate of technical sciences V. Stanislavyuk in the column "Resolutions of the 26th CPSU CONGRESS--in Practice": "Transport in the 11th Five-Year Plan"]

[Text] Transport is one of the key links in the country's national economic system. Its role in solving our economic and social problems is increasing steadily.

In the Soviet Union a large capacity and extensive system has been developed which includes all types of modern transport and incorporates the most modern equipment. For instance, over the past 15-20 years in rail transport, steam power has been completely replaced by electric and diesel power, tens of thousands of kilometers of railroad line have been equipped with automatic switching and centralized dispatcher control and the technical facilities of two other forms of transport have been updated and improved. Construction on transportation facilities is being carried out at a rapid pace. Construction is proceeding on the Baykal-Amur Mainline and a number of other vital railroads and additional main lines are being installed and stations built for existing lines. Every year almost ten thousand kilometers of pipeline for oil, oil products and natural gas distribution and tens of thousands of kilometers of hard-surfaced roads are put into production. Sea and river ports and airports for civil aviation are being remodeled and improved. Interior waterways are being upgraded.

In recent years in the operation of transportation facilities, especially those of railroads, serious difficulties have arisen which are having an adverse effect on all sectors of the national economy. In the Accountability Report of the 26th Congress of the CPSU Central Committee comrade L. I. Brezhnev pointed out that the accumulated problems could be solved "only on the basis of a long-term systematic program." Such a program was outlined in Basic Directions for Economic and Social Development of the USSR in 1981-1985 and for the Period until 1990 which was approved at the congress. It stressed, in particular, "improving organization of the transport process and its control; increasing efficiency and operational reliability of transportation facilities; improving coordination of the operation of all types of transport with other economic sectors and the adoption of better equipment for shipments in mixed transport."

These principally organizational measures are intended to insure more complete utilization of available resources and to help minimize the demurrage of transport in supplying the needs of the national economy and the population.

As in previous years, reinforcement of its materials and equipment base, adding to and updating its equipment and further development of the transport network should play the main role in solving the problems facing transport. An important part will be played by rail transport which handles the bulk of freight shipments.

There should be a 14-15 percent increase in rail transport's freight handling which is 2.5 times greater than the relative growth of this indicator during the 10th Five-Year Plan. The increasing freight handling of railroads will come about mainly through an increase in the throughput and carrying capacity of the trunk lines of the rail network. The 11th Five-Year Plan calls for increasing construction on branch lines and electrifying the lines. Railroads will continue to be provided with automatic switching and centralized dispatcher control and the capacity of railyards and stations will be increased. But the potential for strengthening the railroad network by traditional means is gradually being exhausted and the problems of accelerating scientific and engineering progress, developing and putting into operation new rolling stock with more cargo capacity and new traffic control systems on railroad lines are developing more importance.

In past five-year plans pipelines, air and automotive transport have been developed at an ever increasing pace.

This has led to a reduced demand for railroad carrying capacity and consequently less need for its development. At the same time it has become possible to accomplish transport more economically and with better indicators.

For instance, oil delivery by pipeline is three times less expensive than transporting it by railroad. At the same time, working conditions are being improved which considerably increases its productivity and promotes regularity in its delivery. Compared with railroad transport, air transport considerably shortens the time passengers spend en route, which has an enormous economic and social value. Switching some interurban freight shipments from the railroads to motor transport also provides savings by eliminating time-consuming trans-shipments and reducing the time for cargo delivery. For this reason increasing the proportion of specialized types of transport used in freight and passenger transportation is an important contribution to raising the efficiency of the country's transportation system.

River transport's share in the general delivery work of the country's transportation system has been reduced comparatively although even here there are available carrying capacity reserves whose use would reduce the load of railroads in a number of directions during the summer when there is a seasonal increase in freight and passenger traffic. This means that the need has arisen to create conditions for efficient use of these resources.

Among the problems involved in handling growing transportation operations, requirements for the delivery of natural gas from the northern regions of Tyumenskaya Oblast are distinguished by their very scale. By 1985, 330-370 billion cubic meters of gas will have been extracted in the indicated regions for whose delivery to the European part of the country seven ultra long-range, large diameter gas pipelines will have to be constructed during the new five-year plan in addition to pipelines already in place. In 1981-1985 the overall amount of work on installing gas pipelines will be doubled in comparison with the previous five-year plan.

The use of maritime transport in handling the growing traffic is mainly the result of an increase in the government's foreign trade.

To provide for the increasing traffic it will be necessary to raise the efficiency and operational reliability of transportation facilities. Primarily, this means more productive, efficient use of trains, ships, airplanes and motor vehicles and the creation of conditions for achieving maximum speed and greatly reducing lost time in loading and engineering operations. In the Accountability Report to the 26th Congress of the CPSU Central Committee comrade L. I. Brezhnev pointed out that "Cutting transport costs is a large nation-wide problem. The way to solve it is efficient allocation of capital, development of an optimum freight flow plan and elimination of conflicting traffic."

The projections for developing and upgrading all transportation facilities would create the conditions for successful solution of the main problem posed to transport workers by the Party: to accomplish the complete and timely satisfaction of the transportation needs of the national economy and the population and to increase the quality and efficiency of national transportation system operation.

The five-year plan calls for improving provisions for passengers transported on the railroad. With this in mind, the speed, regularity and frequency of train traffic are being increased, the quality of passenger service is being improved and provisions for transporting the rural population are also being upgraded.

In connection with the national trend toward raising operating efficiency and quality during the new five-year plan, an ever greater significance is being attached to the problem of improving transportation service of the national economy and the population.

In the under-developed northern and eastern regions which lack dependable overland traffic routes, the creation of support railroads and roads has key importance. In the 11th Five-Year Plan construction will continue on the Baykal-Amur Mainline and the Surgut-Urengoy line. In addition, air traffic and river routes will be improved and measures will be taken to extend the navigation period and to increase the regularity of navigation along the North Sea route.

Accelerated development of hard-surfaced roads and the construction on a wide scale of good roads to the rural areas are envisaged for improved service of the national economy and passenger transportation in the densely populated part of the country. The extent of such roads will undergo approximately a 1.5-fold increase.

With upgrading of the transport service of the national economy, it will also be possible to accelerate development of the containerized transport system, to expand shipments of single container cargo by the stacked container method, to mechanize and automate freight handling operations and to incorporate modern technology, automated control systems and other resources.

The accelerated development of transportation will create excellent conditions for further assured development of our entire economy and the steady raising of the material and cultural level of the people's life.

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MISCELLANEOUS

PROBLEMS AT UST'-KUT TRANSPORTATION CENTER

Moscow VOZDUSHNYY TRANSPORT in Russian 11 Aug 81 pp 1, 2

[Article by E. Maksimovskiy, special correspondent of VOZDUSHNYY TRANSPORT, Irkutskaya Oblast: "The Problems of Pilots, River-Transport and Railroad Workers of Ust'-Kut Have Become Tied in a Tight Knot"]

[Text] Only last winter, academician N. A. Shilo, the curator of scientific development of the subsystem--Transport of the Far East, in an interview with VOZDUSHNYY TRANSPORT, spoke urgently of the problems of a large transshipment base in the region of the city of Ust'-Kut. Here begin the Western Division of the Baykal-Amur Main Line, the chief water artery of Yakutiya--the Lena and the air routes of the north. The question is particularly acute in regard to river-transport workers--the water level in the Lena in the Ust'-Kut--Kirensk sector determines the season's supply of Yakut cities, industrial enterprises and mines: the zone of influence of the North Sea route reaches only as far as the Arctic littoral.

In the depths of the Ministry of the River Fleet, voices are to be heard calling for the elimination of Osetrovo Port and shifting of the base to Kirensk, 300 kilometers to the north. Four years ago, the base of the aviation enterprise to which 25 airports are presently assigned, was transferred from Kirensk to Ust'-Kut. This was done for the purpose of providing the Western Division of the Baykal-Amur Main Line with reliable air communication. And, as can be seen, a fairly prominent role was played by the idea of creating and providing a more durable transport connection for the railroad and the powerful river port whose fixed capital is estimated at 100 million rubles.

Today, the idea of lateral movement [rokirovka] is maturing, but at Ust'-Kut, as I understood it, neither the party gorkom nor the steamship line nor the aviation enterprise are sympathetic to this proposal. At the same time, in the middle of the summer the water level has been critical--2.20 cm, and should the water table drop by another 15-20 cm, the cargo fleet would come to a stop. Imported floating craft with a draft of more than 3 meters and even without it have already been laid up.

"Then we would have to turn to air pilots," concluded N. Gorelov, an engineer from the Yakutsk enterprise, who had come to Osetrovo Port to speed up the shipment of deficit metal items and whom I met in Ust'-Kut.

Of course, the aviators would have helped even without Gorelov's intercession, but the fact is that the only real guarantee is to be found in Aeroflot.

...When you look at Ust'-Kut, you have no idea that such passions are seething here. The town would appear to be peaceful, quiet, dust-covered. You can encounter many such places beginning in the South Urals and continuing along the entire Transsiberian. And even the building of the Lena railroad station, which was built in 1954 according to some not very exacting standard plans of the time as can be seen from the half-meter size figures on the peeling pediment, in no way reminds you that a powerful artery made of steel begins here.

Time has stood still at the Lena station through the fault of the builders, who have spent only 5 million of 155 million rubles allocated in the last ten years for the development of the Ust'-Kut railroad hub. Among the BAM people, the situation is much better; here you feel the concern of the whole country--the start-up of the entire Western Division is expected to take place ahead of schedule on 29 October 1981. This means that the closely intertwined economies of Eastern Siberia and the Far East are entering a new stage of intensive development. There will be more work for aviators.

The summer quiet and peace are deceptive when you familiarize yourself with the many years of reports of seismographic stations, meteorological stations, data of laboratories studying permafrost. Never in the history of Russia has a railroad been built under such difficult conditions. Here is to be found one of the most seismically active areas on the surface of the planet--the railroad artery continues more than a thousand kilometers along the axis of a fault in the earth's crust. Permafrost is as treacherous as the taiga's wolverine. Frosts mercilessly gnaw away at both people and metal. People for the most part survive, but steel structures have to be replaced twice to three times as frequently as in Central Russia.

BAM's construction units, in anticipation of the fall festivities, are starting to curtail their rules in Ust'-Kut. Workers, who once left collectives of aviators, river-transport workers and railroad operators because of higher rates and more attractive housing, are now thinking of returning.

Aviation personnel of Eastern Siberia are not happy about such a move. They think that the erosion of existing BAM subdivisions is disadvantageous.

The airport complex is still in the construction stage. The runway has not reached its projected limit; so far it is only able to take the An-24, the An-26 and the Yak-40. The Il-76 and the Yak-42 still await their hour at Ust'-Kut. Circumstances require planning of flights of passenger aircraft to Moscow, Leningrad, to cities in the Urals and Western Siberia and of heavy transport craft to the littoral of the Arctic seas.

This is why aviation personnel insist on special-purpose use of released construction units for the development of the airport, for the erection of a large airport terminal and a housing development together with an entire complex of cultural and consumer facilities. If the hub river port is shifted to Kirensk, aviation personnel would again be eyeball to eyeball with the weak contracting organizations of Ust'-Kut's gorispolkom and flying brigades of moonlighters. With the departure of the dock workers, construction of housing and children's preschool institutions has been reduced with there being no sign of them being turned over to aviation personnel; thus, another dwelling accommodation or several places in nurseries and kindergartens will be lost. Moreover, and it would be difficult to disagree with this, the territorial of river ports and airports, now working in tandem in supplying one and the same cargo recipients will result in organizational and economic expenditures, the true size of which would be hard to predict today.

"The Lena transport hub is one of the largest in Eastern Siberia," I. Panchukov, first secretary of Ust'-Kut CPSU Gorkom, said. "Records of cargo movements are kept by the information computer center with the aid of powerful Minsk-32 computers. The hub has come to be a balanced and stable operational organism...."

But if the "reorganization enthusiasts" nonetheless yank out the river port from this "organism," won't they find themselves in the unenviable position of a surgeon who, instead of an appendix, has cut out a healthy part of the body?

The Gidroproyektom imeni S. Zhuk studied another worn-out proposal: to establish an Upper Lena hydro hub and holding back the spring flood water, which this year has reached a height of 14 meters, to then economically maintain navigation. A GES with a 600,000 kW capacity provides power to users in Ust'-Kut, and there will be the possibility of irrigating 22,000 hectares of fertile land, which would be of considerable importance to the fast-growing city (in 7 years the population increased fourfold).

Let us not get overexcited: the question is under study, and so far no basis exists for supposing that the heads of operational and finance organizations will adopt an unmotivated decision. We are convinced of this by the words of General Secretary of the CPSU Central Committee Comrade L. I. Brezhnev in the accountability report of the CPSU Central Committee to the party congress: "The program should provide greater coordination of all forms of transport--railroad, motor and air, sea and river and pipeline. The shifting of power and raw material base to the east calls for accelerated development of roads, pipelines and airports in Siberia and the Far East."

This is an important formulation of the question. But life is life, and it is not coordination of the activities of aviation personnel and railroad workers but rather the daily relations that come into being in a surprising fashion, but not to the benefit of the aviation enterprise [aviapredpriyatiye]. It has reached such a stage that they are thinking at the Ust'-Kut aviation enterprise of how best in general to refuse the services of railroad transport for the shipment of machines and valuable cargoes. In 1980, only two aviation tractors were allocated to Irkutskaya Oblast, with one of them going to Ust'-Kut. The new expensive machine arrived here after being robbed on the way. There had been removed the windshield glass, gasoline stoves, lighting paraphernalia, instruments and spare parts. The thieves even cut out the linoleum covering the floor. It can only be assumed that they "worked" fast and without interference. Furnishing for the shipping department also arrived in a sorry state--the dispatcher's counter, revolving chairs and safes were missing. Yet the equipment had been packed in sealed crates!

"It would have been better to wait for winter and ship the machines and cargo by highway," the aviation people lament.

I was unable to determine from my interlocutors at the Ust'-Kut aviation enterprise whether they were going to lodge a claim with the railroad people and demand compensation for their losses. "You know, ours is a small town. You never know when the railroad people could be useful. So it would be better not to quarrel," I was told confidentally by a most candid worker from the aviation enterprise. Does that mean that the stripped aviation tractor is to become a monument to the love and accord of neighbors? Would not such a touching friendship be too onerous for the state and for Aeroflot? I also asked my interlocutors to send to the editorial office a copy of the acts and conclusions on the nature of the plunder of the aviation cargoes on the railroad. This was promised to me, however a month went by and the awaited letter did not appear in the editorial office's mail.

The aviation enterprise faces serious tasks in the 11th Five-Year Plan, and a good labor mood is sensed in its collective.

But it is time to bring up the rear services. The rapidly growing collective lacks housing. The fraternal branch of the Irkutsk Institute for Planning of Civil Structures is unjustifiably tightening up the connection of the 98-unit apartment house. The institute's administration insists on the transfer of another 18,000 rubles and only then will guarantee completion of the project. Should their wishes be satisfied by Aeroflot in the very near future, then, the Ust'-Kut people say with confidence, the project would be completed by the beginning of 1982. They believe at the CPSU Gorkom that at the Ust'-Kut aviation development it is necessary to quickly build a children's combine. Need it be said that almost as many as 150 mothers are voting with both hands for this demand?

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